

CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET
SACRAMENTO, CA 95814-5512



DATE: December 10, 2004

TO: Interested Parties

FROM: Nancy Tronaas, Compliance Project Manager

SUBJECT: Pastoria Energy Facility (99-AFC-7C)
Addendum to Staff Analysis of Proposed Modifications to
Emission Reduction Credit Offsets

On March 22, 2004, the California Energy Commission received a petition from the Calpine Corporation to amend the Energy Commission Decision for the Pastoria Energy Facility. The Pastoria Energy Facility project is a 750 MW combined cycle power plant located 6.5 miles east of the community of Grapevine in Kern County. The project was certified by the Energy Commission in December 2000, and is currently under construction.

The proposed modifications will (1) revise the emission reduction credit (ERC) offset package for specific criteria pollutants, (2) modify the quantity of ERCs to be surrendered to the air district for PM10 and SOx, and (3) make conforming changes to the air quality Conditions of Certification. Energy Commission staff analyzed these proposed changes, and the analysis (dated November 2, 2004) was mailed to interested parties and posted to the Energy Commission's website on November 4, 2004.

On December 7, 2004, the Energy Commission received supplemental information from Calpine that they have determined to modify the SOx /PM10 ratio in response to comments from the U.S. Environmental Protection Agency. Energy Commission staff reviewed this supplemental information and assessed the impacts of this proposal on environmental quality, public health and safety. Staff concluded that this subsequent modification to the March 22, 2004 petition will affect air quality condition of certification AQ-26. The attached addendum to the November 2, 2004 air quality staff analysis is enclosed for your review.

It is staff's opinion that, with the implementation of new and revised conditions (AQ-6, -20, -24, -26, -30, -58, -67, -89, and -90), the project will remain in compliance with applicable laws, ordinances, regulations, and standards and that the proposed modifications will not result in a significant adverse direct or cumulative impact to the environment (Title 20, California Code of Regulations, Section 1769).

The amendment petition and supplement are posted on the Energy Commission's webpage at www.energy.ca.gov/sitingcases. The staff analyses and the order (if the amendment is approved) will also be posted on the webpage. Energy Commission staff

intends to recommend approval of the petition at the December 15, 2004 Business Meeting of the Energy Commission.

If you have comments on this proposed modification, please submit them to me at the address below prior to December 15, 2004:

California Energy Commission
Attn: Nancy Tronaas
1516 9th Street, MS 2000
Sacramento, CA 95814

Comments may be submitted by fax to (916) 654-3882, or by e-mail to ntronaas@energy.state.ca.us. If you have any questions, please contact Nancy Tronaas, Compliance Project Manager, at (916) 654-3864.

Attachment

PASTORIA ENERGY FACILITY (99-AFC-7C)
Petition to Amend Emission Reduction Credit Offset Package
Addendum to the Air Quality Staff Analysis
Prepared by: William Walters, P.E.
December 8, 2004

Reason for Addendum

During the San Joaquin Valley Air Pollution Control District's (District) Final Determination of Compliance public comment period (10/21/04—11/21/04) on the proposed revisions to the Pastoria Energy Facility's (PEF) interpollutant offset ratio and offset package, the U.S. Environmental Protection Agency (U.S. EPA) identified concerns regarding the proposed SO_x for PM₁₀ interpollutant offset ratio (1.06:1). After considering U.S. EPA's position, the project owner, Calpine, has agreed to accept the previously permitted higher interpollutant offset ratio (2.9:1)¹, with an understanding that: (1) it could be reduced in the near future if concurrence with U.S. EPA and San Joaquin Valley Air Pollution Control District can be reached; and (2) the affected District permit condition and Energy Commission Condition of Certification should include this potential for such a reduction. This addendum addresses the revised request to change Condition of Certification **AQ-26**.

Addendum Analysis

Calpine's SO_x Emission Reduction Credit (ERC) Certificate N-270-5 totals over 1.3 million pounds. Even with the significant increase in total SO_x ERCs needed to offset the PM₁₀ emissions with the 2.9:1 interpollutant offset ratio, this certificate has more than enough credits to offset both PEF and the San Joaquin Valley Energy Center projects as identified in the PEF petition to revise the ERC offset package, and still have over 350,000 pounds of credit remaining. Therefore, Calpine possesses a quantity of ERCs necessary to offset both projects and can comply with a 2.9:1 interpollutant offset ratio.

Conclusion

Energy Commission staff finds that the increased SO_x for PM₁₀ interpollutant offset ratio of 2.9:1 would be beneficial to air quality, and would accept any other interpollutant offset ratio higher than Calpine's originally proposed 1.06:1 value that U.S. EPA concurs would properly offset the project's PM₁₀ emissions. Therefore, staff recommends the following appended revision to Condition of Certification **AQ-26** (all other Conditions of Certification are still recommended to be revised as shown in the November 2, 2004 air quality staff analysis for this petition):

Deleted text is shown in ~~strike through~~, and new text is underlined.

¹ The total offset ratio is a sum of the interpollutant ratio and the distance ratio (its value above 1). So, for an interpollutant ratio of 2.9:1 the total offset ratio would be 3.1:1 for ERCs located within 15 miles of the project site (distance ratio 1.2:1, with 0.2 being added to the interpollutant ratio) and the total offset ratio would be 3.4:1 for ERCs located greater than 15 miles from the project site (distance ratio 1.5:1, with 0.5 being added to the interpollutant ratio).

AQ-26 SOx ERCs may be used to offset PM10 emission increases at a ratio of 2.93.1 lb SOx ÷ for each 1 lb PM10 emissions for SOx reductions occurring within 15 miles of this facility; and at a ratio of 3.4 lb SOx ÷ for each 1 lb PM10 emissions for SOx reductions occurring greater than 15 miles from this facility. A different SOx/PM10 ratio may be used upon concurrence of the federal EPA and the District. [District Rule 2201]

Verification: ~~The project owner shall submit copies of ERC surrendered to the CPM no later than 30 days prior to the commencement of operation.~~ No later than 30 days prior to the commencement of operation, the project owner shall submit to the CPM copies of ERCs surrendered, and if the SOx/PM10 ratio(s) used are different than those specified above. The project owner shall in the same submittal provide the CPM with documentation showing federal EPA and District concurrence with the SOx/PM10 ratio used.

Reference

Calpine Corporation Pastoria Energy Facility, LLC (PEF). 2004. Letter w/attachments from Ms. Barbara McBride, Director of Safety, Health & Environment, Calpine Western and California Power Regions to Mr. Thomas Goff, Permit Services Manager, Southern Region, San Joaquin Valley Air Pollution Control District. December 2, 2004.